

PSYCHE.

SOME INSECTS OF THE HUDSONIAN ZONE IN NEW MEXICO.—I.

From Aug. 1 to 4 of the present year my wife and I had an opportunity to collect the almost unknown fauna and flora of the Hudsonian Zone in New Mexico. The locality visited was the summit of the range between the Pecos and Sapello rivers, near the headwaters of the Pecos. This is the main divide between the Rio Grande and Mississippi river systems, and has an elevation of about 11,000 ft. The sides of the range, from about 8000 ft. upwards, possess a very uniform fauna and flora, belonging to the Canadian Zone. When we arrive at the summit however we find a tableland of moderate width, inhabited by a very different set of organisms. The plants have the low stature and large flowers so characteristic of alpines, the bees are nearly all *Bombus* and among the butterflies we see *Par-nassius*, *Brenthis* and *Colias scudderii*.

The plants and mollusca will be reported on elsewhere, but the insects and arachnids will all be enumerated in the following pages, the several groups having been kindly worked up by those

who are most familiar with them. When the series of articles has been completed, it may be possible to add some comments of a general nature.

T. D. A. COCKERELL.

ARACHNIDA.

BY NATHAN BANKS.

Araneida.

Pardosa glacialis Thorell. One female. Known from boreal and sub-boreal regions.

Xysticus gulosus Keys. One young specimen. Known from a large part of our country.

Dictyna sp. One female.

Erigone sp. One female.

Prosthesima sp. Several young specimens; near, and possibly identical with, *P. blanda* Bks.

Phalangida.

Homolophus biceps Thorell. Five specimens; previously known from Colorado, Wyoming, and Montana.

NEUROPTERA.

BY NATHAN BANKS.

Perlidae.

Nemoura sp. One specimen, closely related to the Eastern *N. albidipennis* Walk.

*Trichoptera.***Limnophilus cockerelli** n. sp.

Head yellowish; face with much yellow and some long black hair, vertex with long yellow bristles; antennæ yellowish, feebly annulate with brown, basal joint long, brown on its outer side; thorax yellowish, with yellow hair and bristles; abdomen brown, yellowish at apex; legs light yellow, tips of tarsi more red-brown, on the lower outer side of each anterior femur is a short rather indistinct brown line; spines black, numerous and rather short; spurs yellowish, 2-3 $\frac{1}{4}$, not long. Wings of moderate length and width, not prominently truncate at the tips; nearly uniform dirty yellowish, surface with fine yellow hair, veins and margins with black bristles; veins in middle part of wing mostly brown, often interrupted with pale, other veins pale yellowish; costal region unmarked, pterostigma concolorous with rest of wing; discal cell is no longer than its pedicel; hind wings hyaline.

Length, 10-12 mm.

Two specimens from top of range between Sapello and Pecos River, N. Mex., 2 Aug., altitude about 11,000 ft. In general appearances this species is similar to a pale *L. sitchensis* Kol., but distinct by unmarked pterostigma, shorter discal cell, mark on basal joint of antenna, and line on fore femur.*

* It will be observed that we have *Limnophilus* in Trichoptera, while Mr. Coquillett, in a later section

ORTHOPTERA.

BY SAMUEL H. SCUDDER.

The Orthoptera are all Acridiidae and all northern types.

Camnula pellucida Scudd.

A widespread species extending, next the Canadian border, from Atlantic to Pacific. It is found throughout the Rocky Mt. region and has even been taken as far south as Yuma, Arizona, by Morse.

Circotettix undulatus (Thom.).

This has not before been reported from so far south, but I have taken it in southern Colorado, including the sides of Sierra Blanca, just below timber line, or 11-12000'. It is found at points above 7500' throughout Colorado, as well as in Nebraska, Utah, Wyoming, Montana and Nevada and is reported from Washington and Vancouver Island.

Melanoplus cockerelli sp. nov.

Closely related to *M. dawsoni* Scudd., from which it differs principally in the longer furcula, the much broader male cerci and the subgenital plate apically more elevated, and distinctly though minutely emarginate. The coloring is much as in that species. The

describes a species of *Limnophila* in Diptera. These names may be considered sufficiently distinct, but if not so considered, the genus of Diptera has priority. The Trichopterous *Limnophilus* is also antedated by *Limnophilus* Fitz., in Reptilia, according to the dates given in the Nomenclator Zoologicus; but Hagen credits *Limnophilus* to Leach, which would throw it before Fitzinger's name. Banks (Tr. Am. Ent. Soc., XIX, 363) writes *Limnophilus* Leach, and this appears also in the Nom. Zool., with the date 1817, which is anterior to Macquart's *Limnophila* in Diptera. It would seem better to avoid confusion, to keep the original spelling of *Limnophilus*' Leach, and drop *Limnophilus* (Burm., 1869) as a homonym.—T. D. A. C.

interspace between the mesosternal lobes is about half as long again as broad (δ) or scarcely longer than broad (φ). The tegmina overlap and are considerably longer than the pronotum and a little longer than in *M. dawsoni*. The hind femora are stout in the male, red beneath, mostly fuscous externally, with oblique dashes of testaceous basally and the superior carina testaceous; much slenderer in the female and more obscure; hind tibiae deep red, becoming apically infuscated in the female. End of male abdomen upcurved and a little clavate, the supraanal plate moderate, triangular, mesially constricted, the median sulcus shallow with coarse walls; furcula consisting of a pair of blunt parallel spines about a third as long as the supraanal plate; cerci laminate, feebly falciform, about twice as long as basal width, feebly narrowing, well rounded apically, scarcely incurved; subgenital plate rather small, subpyramidal, elevated a little apically and slightly emarginate.

Length of body, δ , 19 mm., φ , 22 mm.; hind femora δ , 11 mm., φ , 12.25 mm.

Described from 1 δ , 1 φ .

***Melanoplus altitudinum* Scudd.**

This species was taken by Lt. Carpenter on Taos Peak in the Sangre de Cristo Mts., N. Mex., at 13000, and occurs at high elevations (7-13000') in the Rocky Mts. as far at least as Montana and Dakota.

***Melanoplus sapellanus* sp. nov.**

In general coloring and markings hardly distinguishable from *M. altitudinum* Scudd.; with which it agrees somewhat closely in structure, though not so closely as with *M. rusticus* Stål. The interspace between the mesosternal lobes is quadrate (δ) or a little transverse (φ). The tegmina overlap and are only a little longer than the pronotum. The hind femora are moderately stout in

both sexes, red beneath, the outer face almost wholly blackish fuscous, but elsewhere testaceous; hind tibiae red. End of male abdomen hardly clavate or upturned, the supraanal plate rather small, triangular, rounded-tectate, with very slight median sulcus extending as far as a slight transverse median ridge; furcula consisting of a pair of parallel somewhat flattened dentations, about a third as long as the supraanal plate; cerci very small, not greatly compressed, blunt tipped, gently tapering and slightly curved, reaching but little beyond the transverse ridge of the supraanal plate; subgenital plate rather large, narrower than long, hastrate, with straight lateral margins, and well rounded apical margin, in no way elevated.

Length of body, δ , 23 mm., φ , 22.5 mm.; hind femora, δ , 10 mm., φ , 12 mm.

Described from 1 δ , 3 φ .

LEPIDOPTERA NOCTUIDAE.

BY J. B. SMITH.

***Feltia vancouverensis* Grt.**

1 φ . A common species throughout the mountains of the west—extending north into British America.

***Carneades ochrogaster* Gn.**

2 females; throughout the Rocky Mountain region, north into British America; northern New York and New England; Ontario.

***Orthodes virgula* Grt.**

Rocky Mountain region, not so common.

***Plusia celsa* Hy. Edw.**

1 φ . Described from "S. W. Ariz." Not a common thing. Closely related to my *angulidens* from the high Rockies.

***Plusia hochenwarthi* Hoch.**

2 ♀. Not rare throughout the higher Rockies, and in the foothills in British America.

Melicleptria villosa Grt.

1 ♀. Common in the Colorado Rockies.

Drasteria erechtea Cramer.

1 ♀. Common everywhere.

NOTES ON THE SPECIES OF MACROPSIS AND AGALLIA OF NORTH AMERICA.

BY E. D. BALL, FORT COLLINS, COLO.

In 1898 Osborn and Ball published a review of the species of *Agallia** in which thirteen species were included. A few months later Mr. C. F. Baker in a paper on the genus † described six species and one variety as new. Of these, five are synonyms of species included in our synopsis, leaving two to add to the list. The present paper adds three more, making eighteen strictly N. A. species, to which might be added five species by Uhler from St. Vincent Isd. though not strictly within our territory.

Agallia modesta O. & B.

Agallia mexicana Baker. Baker's specimens were from the same locality (Vera Cruz) from which *modesta* was described, and agree in every respect, except that he gives the last ventral segment of the ♀ as "slightly concave."

If he had followed his own elaborate

directions for viewing this segment (Ent. News Mch. '99, p. 91-92) he would have found it truncate as originally described. In his remarks after the description *4-notata* (used twice) should read *4-punctata* and "this" in the last sentence should certainly be "these" instead.

Agallia producta O. & B.

Agallia heydei Baker. This species of Baker's was also described from the same locality from which the corresponding one of ours came. A comparison of the descriptions will satisfy anyone of their identity. In his description of the female segment he says "to a shallowly notched apex." The original description reads "truncate but often angularly elevated, giving the appearance of a slight median notch." Did he follow his own directions that time? The name *4-notata* occurs three times in this description; there has been no species described under that name. He must certainly mean *4-punctata* Prov.

* A review of the N. A. Species of *Agallia*. Proc. Dav. acad. VII, pp. 45-64. Authors Separata mailed Jan. 26, 1898.

† PSYCHE, April, 1898.